

## A B S T R A C T

The present invention relates to an optical fiber (1') having at least one Bragg grating (11), the fiber 5 comprising a core (2) surrounded successively by cladding (3) and by a coating (4), said grating being obtained by being written directly in the core and/or the cladding of the fiber through the coating which is made of a material that is substantially transparent to ultraviolet type 10 radiation used for writing said grating, wherein the material of said coating contains a first polymer network interpenetrated by a second polymer.